

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): **Aberle et al.**Appln No.: **10/530,848**Filed: **April 8, 2005**For: **FABRICATION METHOD FOR  
CRYSTALLINE  
SEMICONDUCTOR FILMS ON  
FOREIGN SUBSTRATES**Group Art  
Unit:**2812**Examiner: **Not Yet Assigned**Docket No.: **85267**Cust. No.: **22242**Conf. No.: **2457****CERTIFICATE OF MAILING**

I hereby certify that this paper is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Mail Stop **AMENDMENT**, Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450, on this date.

8/1/05  
Date

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Registration No. 25,747  
Attorney for Applicant(s)

**INFORMATION DISCLOSURE STATEMENT**

Mail Stop **AMENDMENT**  
Commissioner for Patents  
P. O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In accordance with 37 C.F.R. §§1.97 and 1.98, applicant and the undersigned attorney wish to bring the following information to the Examiner's attention in connection with the examination of the above-captioned application.

The documents are listed on PTO/SB/08A Substitute for Form PTO-1449 which accompanies this Information Disclosure Statement. A copy of each foreign document and each non-patent literature document cited thereon is enclosed herewith.

U.S. PATENT DOCUMENTS		
Document Number	Publication Date	Name of Patentee or
Number-Kind Code <sup>2</sup>	MM-DD-YYYY	Applicant of Cited Document
US-5,275,851 A	01/04/1994	Fonash et al.
US-5,344,796 A	09/06/1994	Shin et al.
US-6,097,037 A	08/01/2000	Joo et al.
US-6,248,675 B1	06/19/2001	Xiang et al.
US-6,251,715 B1	06/26/2001	Jung et al.

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US-6,383,851 B2	05/07/2002	Ping
US-6,451,637 B1	09/17/2002	Jang et al.

FOREIGN PATENT DOCUMENTS		
Foreign Patent Document	Publication Date	Name of Patentee or
Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup>	MM-DD-YYYY	Applicant of Cited Document
EP 1 271 620 A1	01/02/2003	Hyoung June Kim
JP 2002261305	09/13/2002	Toyota Central Res. & Dev. Lab Inc.

NON PATENT LITERATURE DOCUMENTS
Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
WIDENBORG, PER I. and ABERLE, ARMIN G., Surface morphology of poly-Si films made by aluminium-induced cyrstallisation on glass substrates, Journal of Crystal Growth, 242 (2002) 270-282.
NIIRA, K., HAKUMA, H., KOMODA, M., FUKUI, K. and SHIRASAWA, K., Thin film poly-Si formation for solar cells by Flux method and Cat-CVD method, Solar Energy Materials & Solar Cells 69 (2001) 107-114.
NAST, OLIVER, PUZZER, TOM, KOSCHIER, LINDA M., SPROUL, ALISTAIR B. and WENHAM, STUART R., Aluminum-induced crystallization of amorphous silicon on glass substrates above and below the eutectic temperature, Applied Physics Letters, American Institute of Physics, Vol. 73, Number 22, 30 November 1998, pages 3214-3216.
NAST, OLIVER and HARTMANN, ANDREAS, Influence of interface of Al structure on layer exchange during aluminum-induced crystallization of amorphous silicon, Journal of Applied Physics, American Institute of Physics, Volume 88, Number 2, 15 July 2000, pages 716-724.
MAJNI, G. and OTTAVIANI, G., Large-area uniform growth of <100> Si through Al filim by solid epitaxy <sup>a)</sup> , Applied Physics Letters, American Institute of Physics, Vol. 31, No. 2, 15 July 1977, pages 125-126.
WOLF, STANLEY, Ph.D., and TAUBER, RICHARD N. Ph.D., Silicon Processing for the VLSI Era, Volume 1, Lattice Press, Sunset Beach, CA, pages 559-564
SHI, Z., YOUNG, T. L., and GREEN, M. A., Solution Growth of Polycrystalline Silicon on Glass at Low Temperatures, Proceedings First World Conference on Photovoltaic Energy Conversion, Hawaii, pp. 1579-1582. (December 1994).
SPOSILI, ROBERT S. and IM, JAMES S., Sequential lateral solidification of thin silicon films on SiO <sub>2</sub> , American Institute of Physics, Applied Physics Letters 69 (19) 4 November 1996, pages 2864-2865.

MATSUYAMA, T., TERADA, N., BABA, T., SAWADA, T., TSUGE, S, WAKISAKA, K. and TSUDA, S., High-quality polycrystalline silicon thin film prepared by a solid phase crystallization method, Journal of Non-Crystalline Solids, 198-200 (1996) 940-944.

ZOTOV, A. V. and KOROBTSOV, V. V., Present Status of Solid Phase Epitaxy of Vacuum-Deposited Silicon, Journal of Crystal Growth, 98 (1989) 519-530.

ITO, TADASHI; FUKUSHIMA, HIDEOKI and YAMAGUCHI, MASAFUMI, Fabrication of Thin-Film Polycrystalline Silicon Solar Cells by Silane-Gas-Free Process Using Aluminum-Induced Crystallization, Jpn. J. Appl. Phys. Vol. 42 (2003) pp. 1526-1532.

JIN, ZHONGHE; BHAT, GURURAJ A.; YEUNG, MILTON; KWOK, HOI S. and WONG, MAN, Nickel induced crystallization of amorphous silicon thin films, American Institute of Physics, Journal of Applied Physics, Volume 84, Number 1, 1 July 1998, pages 194-200.

### REMARKS

The Information Disclosure Statement is being filed under 37 C.F.R. §1.97(b)(3) before mailing of the first Office Action on the merits.

Pursuant to 37 C.F.R. § 1.97(g), the filing of this Information Disclosure Statement shall not be construed as representation that a search has been made.

Pursuant to 37 CFR § 1.97(h), the filing of this Information Disclosure Statement shall not be construed to be an admission that the information cited in the statement is, or is considered to be, material to patentability as defined in 37 CFR § 1.56(b).

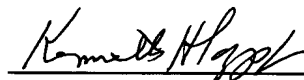
It is respectfully requested that the Examiner consider the above materials and make them of record in the above-captioned application.

The Commissioner is hereby authorized to charge any fees which may be required in this application under 37 C.F.R. § §1.16-1.17 to Deposit Account No. 06-1135.

Respectfully submitted,

FITCH, EVEN, TABIN & FLANNERY

Dated: 8/1/05



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<b>PTO/SB/08a</b> Substitute for Form 1449A/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>				Application Number	10/530,848
				Filing Date	April 8, 2005
				First Named Inventor	ARMIN ABERLE
				Art Unit	Not Yet Assigned
				Examiner Name	Not Yet Assigned
Sheet	1	of	2	Attorney Docket	85267

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup>			
		US-5,275,851 A	01/04/1994	Fonash et al.	
		US-5,344,796 A	09/06/1994	Shin et al.	
		US-6,097,037 A	08/01/2000	Joo et al.	
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		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup>			
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		JP 2002261305	09/13/2002	Toyota Central Res. & Dev. Lab Inc.	

Examiner Signature		Date Considered	
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kind Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

<b>PTO/SB/08b</b> Substitute for Form 1449B/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>				Application Number	10/530,848
				Filing Date	April 8, 2005
				First Named Inventor	ARMIN ABERLE
				Art Unit	Not Yet Assigned
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		WIDENBORG, PER I. and ABERLE, ARMIN G., Surface morphology of poly-Si films made by aluminium-induced crystallisation on glass substrates, Journal of Crystal Growth, 242 (2002) 270-282.	
		NIIRA, K., HAKUMA, H., KOMODA, M., FUKUI, K. and SHIRASAWA, K., Thin film poly-Si formation for solar cells by Flux method and Cat-CVD method, Solar Energy Materials & Solar Cells 69 (2001) 107-114.	
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